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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/638,239	08/08/2003	Osman Kibar	16078-002001	3186
26161	7590	08/02/2006	EXAMINER	
FISH & RICHARDSON PC P.O. BOX 1022 MINNEAPOLIS, MN 55440-1022			CRABTREE, JOSHUA DAVID	
			ART UNIT	PAPER NUMBER

3715

DATE MAILED: 08/02/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/638,239

Applicant(s)

KIBAR, OSMAN

Examiner

Joshua D. Crabtree

Art Unit

3715

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 8/8/03.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-48 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-48 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 08 August 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>2/22/05</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Drawings

1. The drawings are objected to because the drawings are not legible. The examiner is unable to read some of the words clearly. Specific examples include elements 12, 60, 74, 78, and 80. All drawings must be made by a process which will give them satisfactory reproduction characteristics. Every line, number, and letter must be durable, clean, black (except for color drawings), sufficiently dense and dark, and uniformly thick and well defined. The weight of all lines and letters must be heavy enough to permit adequate reproduction. This requirement applies to all lines however fine, to shading, and to lines representing cut surfaces in sectional views (See 37 C.F.R. 1.84(l)). Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing

date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

2. Claims 1-37 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. In order for a claimed invention to be patentable, it must produce a "useful, concrete and tangible result" (see *State Street*, 149 F.3d at 1373, 47 USPQ2d at 1601-02.) Specifically, claim 1 is directed toward deriving a conclusion. A conclusion is an abstract idea, and is therefore not tangible. None of the claims 2-18 correct this deficiency. Similarly, claim 33 is directed toward deriving a conclusion. None of the claims 34-37 correct this deficiency.

Claim 19 is directed toward making a determination. A determination is an abstract idea, and is therefore not tangible. None of the claims 20-32 correct this deficiency.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claim 1 is rejected under 35 U.S.C. 112, second paragraph. Regarding claim 1, the phrase "sufficient" renders the claim indefinite because it is unclear what amount of measurements constitutes a *sufficient* amount.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 1-23, 28-30, and 48 are rejected under 35 U.S.C. 102(e) as being anticipated by Bindler et al. (US 2003/0059750).

With regard to claim 1, and the limitation of automatically performing measurements of responses of a subject, the measurements comprising a sufficient set of measurements to complete a psychological evaluation task or to derive a complete conclusion about a cognitive state, emotional state, or a socio-emotional state of the subject, Bindler et al. disclose this feature (Figs. 4, 8-15; Paragraphs [0058], [0133 - 0154]).

With regard to the limitation of automatically completing the task of deriving the complete conclusion based on the measurements of responses, Bindler et al. disclose this feature (Paragraphs [0035], [0062], [0130]; Fig. 1).

With regard to claims 2 and 3, and the limitation of measurements made with electronic devices including video and audio devices, Bindler et al. disclose this feature (Paragraph [0045], [0057], [0064], [0067], [0132]).

With regard to claim 4, and the limitation of including automatically using pre-stored information to derive the complete conclusion about the cognitive state, emotional state, or socio-emotional state based on the set of measurements, Bindler et al. disclose this feature ((Paragraphs [0062], [0130]).

With regard to claim 5, and the limitation of inferring an ability of the subject to carry out a function, based on the complete conclusion of the cognitive state, the emotional state, or socio-emotional state, Bindler et al. disclose (Paragraph [0132], [0144], [0240], [1418]).

With regard to claim 6, and the limitation of the responses to predetermined stimuli, Bindler et al. disclose this feature (Paragraph [0057], [0145], [0185]).

With regard to claims 7 and 8, the limitations of stimuli being provided and controlled automatically, Bindler et al. disclose this feature (Paragraph [0045]). Bindler et al. also disclose that the invention is an automated and intelligent psychological system (Paragraph [0035], [0087]).

With regard to claim 9, and the limitation of the stimuli comprising displayed still images or video segments, Bindler et al. disclose this feature (Paragraph [0135], [0145], [1708]).

With regard to claim 10, and the limitation of the stimuli comprising sounds, Bindler et al. disclose this feature (Paragraph [0132], [1320]).

With regard to claims 11 and 12, and the limitation of the measurements of responses including measurements of responses within a context involving subject participation or human-human interaction, and measurements of responses of the subject and of other subjects involved in the subject participation or human-human interaction, Bindler et al. disclose this feature (Paragraph [0129], [0244]).

With regard to claim 13, and the limitation of the subject viewing video in a context involving subject participation or human-human interaction, Bindler et al. disclose this feature (Paragraph [0244], [2475]).

With regard to claim 14, and the limitation of the subject comprising a group of humans, Bindler et al. disclose that the invention may be used with people (Paragraph [0082]).

With regard to claims 15, 16 and 17, and the limitation of deriving a conclusion about the level or quality of coordination, communication, and cooperation within a group of subjects, Bindler et al. disclose a chat feature with which group of subject may participate in a virtual therapeutic group (Paragraph [0120]).

With regard to claim 18, Bindler et al. do not explicitly disclose deriving a conclusion on the state of a person relative to the rest of the group. However, by providing a group therapy feature, as described above, the invention of Bindler et al. is inherently capable of being used to compare the state of one group member with the states of the other group members.

With regard to claim 19, and the limitation of automatically performing measurements of responses of a subject over a period of time having a predetermined length, Bindler et al. disclose a three week period for one embodiment of the invention (Paragraph [1719]). With regard to the limitation of automatically determining a cognitive state, emotional state, or a socio-emotional state based on the measurements and on the length of the pre-determined period of time, Bindler et al. disclose that the subject enters results into a record-keeping file (Paragraph [1720]). Additionally, the invention of Bindler et al. is primarily directed toward evaluation and assessment functions, as previously described.

With regard to claims 20-23, and the limitations of performing measurements over a second period of time, analyzing the differences of the measurements between the first and second periods of time, and using different scales for the first and second times, Bindler et al. disclose a meditative training module in which the subject undergoes a three week training period. After the training period, the subject is able to return to the meditation module if they feel the need for a refresher course. The

individual training sessions have a time duration measured in minutes. (Paragraphs [1719- 1720]).

With regard to claim 28, Bindler et al. disclose automatically performing measurements of responses of a subject (Paragraph [0010], [0087]), automatically deriving from the measurements a complete conclusion about a cognitive state, emotional state, or a socio-emotional state (Paragraph [0058], [0133 - 0154]). With regard to claims 28 and 29, and the limitation of one of the measurements and conclusions being based on a demographic characteristic, comprising at least one of race, gender, age, etc., Bindler et al. disclose this feature (Paragraph [0045], [0161], [0234]).

With regard to claims 30, and the limitation of the measurements being performed in a context that is selected to enhance a purity or intensity of responses, the context being selected based on the demographic characteristic, Bindler et al. disclose incorporating stimuli into the training module, based on parameters such as age or gender (Paragraph [0045]).

With regard to claim 38, and the limitation of instructing a subject to observe a performance of a multimedia work to induce an emotional, socio-emotional, or cognitive state, Bindler et al. disclose this feature (Paragraph [0066], [0132], [1007], [1124]).

With regard to the limitations of recording and analyzing responses of the subject in two different modes of expression that are associated with the state, Bindler et

al. disclose this feature (Paragraph [0145]). Bindler et al. also disclose that the invention can be used to provide a variety of modes of expression to the subject (Paragraph [0132]).

With regard to the limitations of integrating the responses in two different modes of expression, and interpreting the results of the integration to provide a psychological evaluation of the subject, Bindler et al. disclose this feature (Paragraph [0130 - 0132]).

With regard to presenting evaluation results, Bindler et al. disclose this feature (Paragraph [0328], [1313]).

With regard to claims 39-42, and the limitations of responses comprising changes in the subject's face, voice, posture, and speech, Bindler et al. disclose measuring physiological parameters of response, including vocal responses and dynamics (Paragraph [0064], [0109], [0185], [1202], [1280 -1281]).

With regard to claim 43, and the limitation of responses comprising changes in the content of a subject's writings, Bindler et al. disclose typed responses (Paragraph [1201]; Fig. 3). Bindler et al. also disclose written assignments (Paragraph [0155]).

With regard to claim 44, and the limitation of the responses being recorded before or after the performance of the multimedia work, Bindler et al. disclose this feature (Paragraph [0145], [0166]).

With regard to claim 48, and the limitation of the evaluation results being presented as a printout to a professional or to the subject, Bindler et al. disclose this feature (Paragraph [2430], [2446]).

5. Claims 33-35 are rejected under 35 U.S.C. 102(b) as being anticipated by Goknar (US 6,120,440).

With regard to claim 33, and the limitation of automatically performing measurements of responses of a subject, Goknar discloses this feature (Fig. 1A; Col. 1: 17-23).

With regard to the limitation of deriving from the measurements a complete conclusion about a cognitive state, emotional state, or socio-emotional state of the subject, Goknar discloses this feature (Col. 6: 38-44).

With regard to the limitation of at least one of the measurements being quantified, and the conclusion derived from the measurements being quantified, Goknar discloses this feature (Col. 4: 35-48; Fig. 4A).

With regard to claim 34, and the limitation of storing an association between the quantitative representations of measurements of responses and corresponding quantitative representations of the conclusion about a state, Goknar discloses this feature (Col. 7: 11-33; Figs. 4A-B).

With regard to claim 35, and the limitation of the quantitative representation comprising an indicator of the intensity of a state, Goknar discloses this feature (Col. 7: 11-19).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
 2. Ascertaining the differences between the prior art and the claims at issue.
 3. Resolving the level of ordinary skill in the pertinent art.
 4. Considering objective evidence present in the application indicating obviousness or nonobviousness.
6. Claim 24-27 and 47 is rejected under 35 U.S.C. 103(a) as being unpatentable over Bindler et al. in view of Goknar (US 6,120,440).

With regard to claims 24-27 Bindler et al. do not disclose performing measurements to determine a second state, the second state being of a different time scale and mood or temperament than the first state. Goknar teaches performing multiple evaluations in which indicators including function, cognition, emotion, behavior, and personality can be measured (Col. 5: 57-67; Figs. 4A-B). Goknar teaches

that subsequent evaluations can be conducted with all of the evaluative indicators, or just certain indicators relevant to the diagnosis of the patient (Col. 3: 63 – Col. 4: 17; Col. 6: 38-44). It would have been obvious to one of ordinary skill in the art at the time of invention to incorporate the teaching of Goknar into the invention of Bindler et al. in order to provide an evaluation system in which different indicators are measured in a subsequent evaluation. This would allow a user to view different psychiatric symptom from different evaluations.

With regard to claim 47, Bindler et al. do not disclose comparing the integrated responses to a norm. Goknar teaches this feature (Col. 4: 42-45). It would have been obvious to one of ordinary skill in the art at the time of invention to incorporate the teaching of Goknar into the invention of Bindler et al. in order to provide an evaluation system in which the responses of a subject are compared to a standardized rating scale.

7. Claims 31 and 32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bindler et al. in view of Robarts et al. (US 6,842,877). Bindler et al. do not disclose deriving a conclusion, based on the demographic characteristic, from the measurements, and the limitation of storing an association, based on the demographic characteristic, between the representations of measurements of responses and corresponding representations of the conclusion about a state. Gevins et al. teach these features (Paragraph [0047], [0051], [0083], [0095]). It would have been obvious to one of ordinary skill in the art at the time of invention to incorporate the teaching of Gevins et al. into the invention of Bindler et al. in order to provide a evaluation system in which

subject demographic information is used to draw conclusions, and associations between measurements of responses and corresponding conclusions about a state are stored. Such information would be useful in determining correlations between demographic factors and different types of disorder or mental illness.

8. Claims 36 and 37 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bindler et al. in view of Buxton et al. (US 2005/0227233). Bindler et al. do not disclose the accuracy or variability of the conclusion about a state being quantified, and storing an association between the accuracy and the variability of representations of measurements of responses and the corresponding accuracy and variability of representations of the conclusion about a state. Buxton et al. teach performing a test on a group of subjects, and determining the validity of the results by comparing results of a diseased subject to those of a normal subject (Paragraph [0030]). It would have been obvious to one of ordinary skill in the art at the time of invention to incorporate the teaching of Buxton et al. into the invention of Bindler et al. in order to provide an evaluation system in which the accuracy of results of an evaluation are quantified.

9. Claim 45 is rejected under 35 U.S.C. 103(a) as being unpatentable over Bindler et al. in view of Brown (US 6,334,778). Bindler et al. do not disclose taking account of delays between responses in different modes of expression. Brown teaches measuring a subject's reaction times in response to a stimulus. Brown teaches that this information may be used to indicate increase or decrease in attention level of the subject with respect to time (Col. 7: 36 - Col. 8: 3). It would have been obvious to one of ordinary skill

in the art at the time of invention to incorporate the teaching of Brown into the invention of Bindler et al. in order to provide an evaluation system in which delays in reaction are measured. This could enable an assessor to detect cognitive impairment, or measure increases or decreases in attention level of the subject.

10. Claim 46 is rejected under 35 U.S.C. 103(a) as being unpatentable over Bindler et al. in view of Joao (US 5,961,332). Bindler et al. do not disclose taking account of differing weights of contributions of responses in different modes of expression to determine a state. Joao teaches weighting "major" emotions more heavily than "minor" ones. Joao teaches that this is done because major emotions exert more influence over a person than minor ones do (Col. 25: 4-18; Fig. 4B). It would have been obvious to one of ordinary skill in the art at the time of invention to incorporate the teaching of Joao into the invention of Bindler et al. in order to provide an evaluation system in which different responses are weighted according to their influence over a subject.

Conclusion

11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Calhoun et al. (US 6,280,198) disclose a remote computer implemented method for cognitive testing.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joshua D. Crabtree whose telephone number is 571-272-8962. The examiner can normally be reached on 8:00-4:30, Mon-Fri.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert P. Olszewski can be reached on (571) 272-6788. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

SC

Joshua D. Crabtree
June 28, 2006


KATHLEEN MOSSER
PRIMARY EXAMINER